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## Assessment of the degree to which primary school teachers use alternative assessment and evaluation methods

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### Abstract

This study was carried out among 60 primary school teachers who teach at Ministry of Education's state and private schools to investigate primary school teachers' opinions regarding the degree to which they know and use alternative assessment and evaluation methods. This is a descriptive study since it is a kind of research that establishes already existing situation. The scale which Kuran and Kanatlı (2008) prepared and of which they made the validity and reliability measurements was carried on the participants, the collected data was analyzed statistically and the opinions of primary school teachers were asserted based on the statistical findings. No significant difference was found among teachers' opinions of alternative assessment and evaluation methods. It was singled out that the teachers mostly use performance evaluation, concept maps and portfolios of all alternative assessment and evaluation methods.

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**Keywords:** Education; teacher; assessment; alternative evaluation; in-service training.

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### 1. Introduction

The need for qualified individuals is increasing day by day in the developing and changing world. Basic way to bring up qualified individuals is dependent on the education policies of countries. Education should aim not only to repeat what generations have done, but also to bring up individuals who have the ability to make innovations. Education activities should enable the individuals to correspond to the ever-changing conditions (Erdoğan, 2003). If the education policy of a country is open to any kind of innovation and is an active implementer of the innovations, it is impossible for this country not to bring up qualified individuals.

While Turkey's socio-economical and political structure is going through some new evolutions, its success in this period is dependent upon the human resources it has. There is a need for potential manpower whose education level has got higher in accordance with basic objectives. To achieve this, education system should be improved (Erdoğan, 2003).

Primary education has an important role in the preparation of the individuals for the tasks they are going to have in their adulthood. Knowledge and skills acquired during primary education provide a basis for the knowledge and skills to be acquired in the following grades. That's why primary education is the most important one in the education period.

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Primary education is the period in which the child comes across organized education for the first time, experiences the most critical period in terms of growth, lays the foundations of his/her future education life. For children and youth, the way to a future of high quality passes through a high-quality education period (Gürkan and Gökçe, 1999:3).

While trying to advance for high-quality education, an important matter that rises is: To what degree are the implemented education policies and approaches serving our goal, are we able to achieve our goal?

Agreeing on the idea that assessment of the education system improving along with this questioning by static evaluation methods will not be sufficient, our education system structured by constructivist approach provides the teachers with evaluation means that enable all-purpose evaluation of the students, that consider students' products done in the course of the whole period and performances they display, in which the students are aware of the reasons and the tools of evaluation, that reveal and evaluate different intelligence fields (Anıl ve Acar, 2008). Under the light of these objectives, besides traditional assessment and evaluation methods such as multiple choice tests, written examinations, alternative evaluations methods such as concept map, self-evaluation, word-association, portfolios, project, peer-evaluation, student product file, and poster have started to be used.

Today, in education, it is aimed that students know the basic concepts, they use these concepts while deciding in daily life, they have critical thinking ability, they identify and solve the problems, and they plan and implement a research and take necessary decisions related to this. To understand if the students can achieve these objectives, it is necessary to use alternative assessment methods (Bekiroğlu, 2004). Alternative assessment and evaluation methods not only direct the individuals to examine, think and create, but also make the education period more meaningful.

Implementers of educational programs at schools are the teachers. If the students' success on a certain subject area is to be evaluated, the most authorized person to do this is the teacher of that subject who has assessment and evaluation skills. Careful effort is needed for the teachers to know their students very well and direct them accordingly. It's teachers' duty to comply with new orientations and to educate the students according to the determined objectives. If a teacher is well-equipped and conveys his/her qualities successfully, the students will be individuals who question and examine, are aware of their different intelligence fields and performances.

We shouldn't forget the fact that the education level we aim to create in the future should provide each child with an opportunity to make use of the best (Russel, 1999). This study aims to evaluate the views of the primary school teachers in the center of İzmir related to their knowledge and implementation of the alternative assessment and evaluation methods.

## **2. Method**

In this study, to determine the degree to which primary school teachers know and use the alternative assessment and evaluation methods, raster pattern which tries to unveil already existing situation and to define as exists was used (Karasar, 2005).

### *2.1. Problem of the Study*

This study questions the degree to which the primary teachers know and use alternative assessment and evaluation methods. Within the frame of this matter, the following questions are to be answered:

Is there a significant difference among teachers' views of alternative assessment and evaluation methods in terms of such variables as gender, education level, grade they teach, length of service, taking in-service training and type of the organization they work for? How do teachers' views of the degree to which they know and use alternative assessment and evaluation methods scatter?

### *2.2. Research Group*

The universe of this research consists of primary school teachers working in the city center of İzmir; the sample consists of 60 primary school teachers working at the state or private school in the city center of İzmir in 2009-2010 academic year. In the selection of primary school teachers responding to the questionnaire, simple random sampling method in which each unit within the universe has an equal chance to be chosen was used (Çingi, 1994).

### 2.3. Measuring Instrument

In this research, the 21-itemed five point likert scale which Kuran and Kanatlı (2008) prepared and of which they made the validity and reliability measurements was used. The questionnaire consists of three parts. In the first part, there are items about participants' demographic characteristics; in the second part, there are items to determine the frequencies of the teachers' use of alternative assessment and evaluation methods; in the third part, there are items determining teachers' views of the usability of alternative assessment and evaluation methods and items about students product folder, structured grid, graded scoring keys, concept maps and student evaluations (self, peer and group).

### 2.4. Data Analysis

Frequency and percentage; mean and standard deviation of the collected data were calculated, it was tested using t-test and analysis of variation whether there is a significant difference among the views of teachers according to gender, length of service, education level, type of the organization they work for, grade they teach and in-service training on alternative assessment and evaluation methods. Obtained findings were interpreted being presented as tables.

## 3. Findings

Table 1. Independent Samples T Test Results of the Teachers' Views About Alternative Assessment and Evaluation Methods According to Gender

Gender	N	X	S.S	t	p
Male	44	86.6	12.38	.338	.736
Female	16	85.5	9.64		

As shown in Table 1, the mean of the male teachers who corresponded positively about alternative assessment and evaluation methods is calculated to be ( $X=86.6$ ), the female teachers' mean is calculated to be ( $X=85.5$ ). This average can be considered quite high for both teacher groups. Based on this result, we can conclude that both teacher groups find this new evaluation approach usable. According to gender, the significance level of the difference between two groups of teachers was checked through "t" test and it was concluded that there was no significant difference at the level of " $p<.05$ ".

Table 2. Analysis of Variation Results of the Teachers' Views About Alternative Assessment and Evaluation Methods According to Education Level

Source of Variation	Sum of Squares	Sd	Mean of Squares	F	p
Within Groups	415.150	4	103.788	.752	.561
Between Groups	7588.500	55	137.973		
Total	8003.650	59			

.50 of the participant teachers are the graduates of bachelor's degree, .20 are those who completed their BA degree after associate degree, .16.7 are the graduates of training institute, .8.3 are the graduates of teacher's training school, .5 have a post graduate degree. Within these groups of teachers, it was observed that their views of the alternative assessment and evaluation are positive. It can be seen that post-graduates' mean is  $X=92.6$ , teacher's training school graduates' mean is  $X=91.6$ , bachelor graduates' mean is  $X=84.5$ . When the significance of the difference observed according to education level is tested by analysis of variation, it was concluded that there was no significant difference at the level of " $p<.05$ ".

Table 3. Analysis of Variation Results of the Teachers' Views About Alternative Assessment and Evaluation Methods According to the Grade They Are Teaching

Source of Variation	Sum of Squares	Sd	Mean of Squares	F	p
Within Groups	572.073	4	143.018	1.058	.386
Between Groups	7431.577	55	135.120		
Total	8003.650	59			

Among the sample group, 30 % is teaching 2nd grades, 20 % is teaching 3rd grades, 18.3 % is teaching 4th grades, 16.7 % is teaching 5th grades and 15 % is teaching 1st grades. On alternative assessment and evaluation, the most positive view is determined to be of the 5th grade teachers with the mean ( $X=91.3$ ). Next comes the 4th grade teachers with the mean ( $X=88.4$ ), in the third place, 1st grade teachers with the mean ( $X=87.88$ ), in the fourth place, 3rd grade teachers with the mean ( $X=84.0$ ), in the last place, 2nd grade teachers with the mean ( $X=83.05$ ) take place. When the significance of the difference according to the grade they are teaching is tested by analysis of variation, no significant difference could be found at the level of " $p<.05$ ". Teachers' views of the alternative assessment and evaluation methods didn't show significant difference according to the grade they are teaching.

Table 4. Analysis of Variation Results of the Teachers' Views About Alternative Assessment and Evaluation Methods According to the Length of Service

Source of Variation	Sum of Squares	Sd	Mean of Squares	F	p
Within Groups	240.755	4	60.189	.426	.789
Between Groups	7762.895	55	141.144		
Total	8003.650	59			

45 % of the participant teachers have 21 years or above job experience. 23.3 % have 1-5 years of job experience, 15 % have 11-15 years of experience; the teachers with 6-10 and 16-20 years of job experience make up 8.3 % of the whole. Arithmetically, teachers with 6-10 years of experience ( $X=89.8$ ) have more positive views than other teachers with different experience, being the teacher with 11-15 years of experience ( $X=82.3$ ) at the first place. When we look at this difference from a statistical point of view, teachers' views of the alternative assessment and evaluation methods didn't show significant difference according to the length of service. ( $p>.05$ )

Table 5. Independent Samples T Test Results of the Teachers' Views About Alternative Assessment and Evaluation Methods According to Whether They Have Had In-service Training

In-service training	N	X	S.S	t	p
I took	24	88.9	11.26	1.429	.158
I didn't take	36	84.6	11.72		

When we analyze the results of Table 5, means of the teachers who expressed their opinions about alternative assessment and evaluation are calculated as ( $X=88.9$ ) for the ones taking in-service training and ( $X=84.6$ ) for the ones not taking in-service training. When we look at the statistical condition of this difference, among teachers' responses regarding alternative assessment and evaluation methods, no significant difference was found according to whether they have taken in-service training or not ( $p>.05$ ). It is interesting that there is no difference between the teachers who have taken in-service training and the ones who haven't taken. It can be seen that the quality of in-service training stands out here.

Table 6. Independent Samples T Test Results of the Teachers' Views About Alternative Assessment and Evaluation Methods According to Type of the Organization They Work For

Organization	N	X	S.S	t	p
Private	30	88.8	9.55	1.700	.094
State	30	83.83	13.09		

When we look at the results of Table 6, no statistically significant difference was found between the means taken from their responses to the questionnaire according to type of the organization they work for ( $p>.05$ ). Arithmetical results show a benefit for the teachers working at private schools with the mean ( $X=88.8$ ).

Table 7. Teachers' Views About Alternative Assessment and Evaluation Methods According to Some Items

Items	I strongly agree		I agree		I partly agree		I disagree		I strongly disagree		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
1	30	<b>50</b>	29	48.3	-	-	1	1.7	-	-	60	100
2	26	43.3	30	50	4	6.7	-	-	-	-	60	100
3	29	48.3	26	43.3	4	6.7	1	1.7	-	-	60	100
4	24	40	29	48.3	5	8.3	2	<b>3.3</b>	-	-	60	100
8	18	30	29	48.3	10	16.7	3	<b>5</b>	-	-	60	100
11	3	5	30	50	17	28.3	7	<b>11.7</b>	3	5	60	100
13	16	26.7	26	43.3	10	16.7	6	<b>10</b>	2	3.3	60	100
15	25	<b>41.7</b>	25	41.7	7	11.7	2	3.3	1	1.7	60	100
16	28	<b>46.7</b>	26	43.3	5	8.3	1	1.7	-	-	60	100
18	27	<b>45</b>	24	40	9	15	-	-	-	-	60	100
21	22	36.7	25	41.7	8	13.3	3	<b>5</b>	2	3.3	60	100

In general, teachers indicated that they strongly agree with the first four items asking their views of alternative assessment and evaluation methods.

50 % of the teachers strongly agreed with the first item “Alternative assessment and evaluation methods help students to know about their abilities and to assess them”; 3.3 % of the teachers disagreed with the fourth item “Alternative assessment and evaluation methods are useful for the assessment of students’ high-level abilities like analysis and synthesis”. It can be seen that 5 % of the teachers disagreed with the 8<sup>th</sup> item “Tools like check lists and marking scale can be effectively used in the evaluation of student product folders”. 11.7 % of the teachers indicated that they disagreed with the 11<sup>th</sup> item “I can prepare and analyze questions appropriate for structured grid techniques”. This percentage shows us that structured grid technique isn’t known enough. When teachers’ views of the rubrics are examined, 41 % of the teachers indicated that they strongly agreed with the 15<sup>th</sup> item “I can prepare various marking scales for the purpose of evaluating performance homework”. The teachers’ percentage who disagreed with the 13<sup>th</sup> item “I can prepare analytic marking scale for the purposes of informing the student, improving and planning education” is 10 %. It can be seen that 46.7 % of the teachers indicated that they strongly agreed with the 16<sup>th</sup> item “I can use concept maps for the purpose of relating students’ newly learnt knowledge to their existing knowledge”. 45 % of the teachers indicated that they strongly agreed with the 18<sup>th</sup> item “Using self evaluation technique is important in increasing student’s self confidence and developing his/her abilities”. It was determined that 5 % of the teachers disagreed with the 21<sup>st</sup> item “I can prepare peer evaluation form for the students to evaluate their friends’ performance”.

#### 4. Results, Discussion and Implications

Most of the teachers consider themselves partly efficient on implementing alternative assessment and evaluation methods and preparing tools. When looked at teachers’ length of service regarding alternative assessment and evaluation methods, the result was arithmetically in favor of the teachers with 6-10 years of working experience. This is a sign of the new graduate teachers’ being closer to these approaches. When we look at the degree to which teachers use alternative assessment and evaluation methods; it was concluded that they commonly used performance evaluation (65 %), concept maps (41.7 %) and portfolios (40 %). The finding that the most commonly used alternative assessment and evaluation methods in the classroom are performance homework and portfolio is similar to the findings of Güven and Eskiürk (2007), Özdaş et. Al (2007) and Duban and Küçükylmaz (2008). Teachers indicated that they had difficulty in preparing structured grid and analytic marking scale because they didn't have enough knowledge about these methods. The finding that research forms and structured grid is rarely used is similar to Duban and Küçükylmaz (2008)'s findings.

It is a successful step in our education that alternative evaluation takes place; however, there have been some obstacles in the usability of these evaluation techniques. Most of the participant teachers complained about now knowing some methods and techniques. The finding that teachers have lack of knowledge on alternative assessment and evaluation methods and techniques matched up with the findings of Çalık (2007), Kaya and Ersoy (2007), Özdaş et. al. (2007). Teachers indicated that they cannot use alternative evaluation because they are always in a hurry to catch up with the curriculum. These results are similar with Erdoğan (2007)’s results in which he concluded that for the new program to be effective, teachers should be provided with enough resources and time for experiment, research and evaluation period. For the process evaluation to work effectively, teachers should be provided with in-service competencies. In many researches on this topic it was indicated that teachers are in need of

in-service training on alternative assessment and evaluation methods (Baki and Birgin. 2002; Erdoğan. 2007). Applied in-service trainings should be arranged in a detailed way for each subject area for long period, rather than in short time intervals. Based on the teachers' opinions, our education program should be changed to be more convenient for alternative evaluation. It will be useful if other researches seeking answer for the following question is carried out: What should be done for alternative evaluation to be conducted at schools healthily and successfully?

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